

**ASSESSING THE CRITICAL MANAGERIAL ELEMENTS OF AN EFFECTIVE
EMERGENCY OPERATIONS CENTER**

**EXECUTIVE ANALYSIS OF FIRE SERVICE OPERATIONS IN EMERGENCY
MANAGEMENT**

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ABSTRACT

The need for effective managerial practices during disasters is obvious, but often times organizations are not capable of performing in these highly charged conditions. As explained by Foster (1980), “the immediate problem in a disaster situation is neither uncontrolled behaviour such as looting nor intense emotional reaction such as panic, but deficiencies of inter-organizational coordination” (p. 223).

The problem this research project addressed was the City of Monterey Park, California had opened its emergency operations center during numerous emergencies and had been ineffective in its managerial practices.

The purpose of this applied research was to assess the critical managerial elements of an effective emergency operations center in an attempt to improve services to the constituents.

This study utilized descriptive research methodologies to answer the following research questions as they relate to the Monterey Park Emergency Operations Center:

- 1) What role, if any, does leadership and followership play in an effective emergency operations center?
- 2) How can effective communication, particularly interoperability, benefit the emergency operations center?
- 3) What are the important principles of effective crisis management?
- 4) What is the most effective means in maintaining organizational integrity in times of crisis?

The procedures for this applied research project included interviews, phone and email consultation, surveys and literature review. The results indicated a variance in

the leadership and followership styles, an emergency operations center lacking modern communication means and interoperability, poor managerial practices employed for making decisions and an inability to sustain continuity of services and organizational integrity.

Recommendations were made to employ team-building processes to improve leadership and followership styles. In addition, a capability assessment of the communication system could lay the foundation for discussion and improvements needed for interoperability. Individualized training could assist leaders in decision-making and a written plan identifying continuity of service could assure organizational integrity.

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INTRODUCTION

The need for effective managerial practices within an emergency operations center has long been known to be a critical factor in the effectiveness of managing disasters, but recent events in emergency response has heightened the awareness to be certain. What has become ever more evident, in regards to effective emergency operations, is the need to emphasize certain managerial practices. As explained by Foster (1980), “the immediate problem in a disaster situation is neither uncontrolled behaviour such as looting nor intense emotional reaction such as panic, but deficiencies of inter-organizational coordination” (p. 223). Assuming the ultimate managerial goal is to improve the problem solving capabilities, which Janis (1989) equates to “working to the best of limited abilities, within the confines of available organizational resources, to exercise all the caution they can to avoid mistakes in the essential task of information search, deliberation, and planning” (p. 29), then one must recognize the need for inter-organizational coordination. Coupled with sound managerial practices, such as leadership and followership, effective communication, effective crisis management and organizational integrity, inter-organizational coordination can lead to effectiveness within the emergency operations center.

The problem this research project addresses is the City of Monterey Park, California has opened its emergency operations center during numerous large-scale emergencies and has been ineffective in its managerial practices, causing a poor utilization of the community multi-hazard functional plan. The major shortcomings are best described by Healy (1969) who states that “the hazardous potential of disaster is

often overlooked by management representatives, because this area usually does not manifest itself as an operational problem encountered during the regular business day. Because of this, many organizations give little or no thought to planning for disaster” (p. 1). Although a comprehensive multi-hazard functional plan has evolved over the years, there has been little concerted effort towards refining the managerial practices that create the framework of the plan.

The purpose of this applied research is to assess the critical managerial elements of an effective Emergency Operations Center in an attempt to improve services to the constituents of Monterey Park, CA through the use of its community multi-hazard functional plan. As these managerial elements are examined, emphases will be placed on what Fink (1986) calls “conditional thinking...you have to learn to ask ‘what-if’ questions and make assumptions about the questions and the answers...‘what if such and such happened? Then I would do thus and thus” (p. 55). A major goal of this project is to move the existing emergency managerial practices to a more dynamic practice, because as Moore and Seymour (2000) describe “... plans must therefore assist and support management to anticipate and handle these demanding functions under crisis conditions” (p. 190) and it is during these crisis states that the existing practices have been most problematic. This study utilized descriptive research methodologies to answer the following research questions as they relate to the City of Monterey Park, CA:

- 1) What role, if any, does leadership and followership play in an effective emergency operations center?

- 2) How can effective communication, particularly interoperability, benefit the emergency operations center?
- 3) What are the important principles of effective crisis management?
- 4) What is the most effective means in maintaining organizational integrity in times of crisis?

These four questions directly relate to the effectiveness of any emergency operations center, but more importantly speak to the value of inter-organizational performance needed for a city to effectively handle crisis. These issues will be addressed in greater detail in the following background and significance section.

BACKGROUND AND SIGNIFICANCE

The City of Monterey Park, CA is located six miles east of downtown Los Angeles and serves a population base of approximately 61,000 residents. Monterey Park is a full service city providing a diverse community with fire, police, public works, community development, economic development, parks and recreation and financial management services. In addition, the city provides emergency management services to the constituents of Monterey Park during local, regional, state and/or federal disasters through the use of the Standardized Emergency Management System (SEMS). Operating from a dedicated emergency operations center, representatives from all city disciplines convene to assume various roles as identified in the cities multi-hazard functional plan. Given the frequency of disasters in the Southern California region, the Monterey Park Emergency Operations Center has been activated numerous times in response to command and control issues facing emergency response personnel within the city. It is

during recent operations, particularly activation on September 11, 2001 and during an increase in Homeland Security Advisory System (HSAS) from yellow to orange, that several deficiencies have been noted, leading to the need for improvement.

The original disaster plan for the City of Monterey Park was drafted in the mid 1970's and mirrored the mutual-aid agreements that are commonly used today throughout the state. This original disaster plan was geared towards emergency response issues, resource allocation and control issues, and restoration of vital services. No mention of emergency management was found in the original plan. As the field of emergency management grew, the City of Monterey Park slowly responded by editing the disaster plan. The first major revision occurred in 1987 when a Fire Captain was tasked with updated critical information. The updated plan included useful preparedness information such as target hazard identification, vulnerability assessment, post-event recovery issues and the plan began to identify key personnel within the city to work within the emergency operations center (of course the location of the emergency operations center was not formally identified). It was not until 1998 that a need to completely re-write the cities disaster plan was identified. It was discovered that the current plan did not meet the minimum federal and state civil preparedness guidelines that would provide reimbursement to the city during a declared disaster.

For nearly four years a new multi-hazard functional plan, which met all federal and state requirements, was developed, approved by the California Office of Emergency Services and finally adopted by the Monterey Park City Council. The new plan identified the Standardized Emergency Management System (SEMS) four phases of emergency

management; Preparedness, Response, Recovery and Mitigation. The new plan also identified key management practices, thereby assisting city staff with coordination and direction during disasters. Nevertheless, even though a comprehensive emergency management plan was available, the city was required to open the emergency operations center only to find critical management errors in emergency response activities. It was quickly learned that having a comprehensive multi-hazard functional plan was not the fix-all to effective management practices.

The current multi-hazard functional plan was adopted and available for city staff use in May 2001. Subsequent to that date, the cities emergency operations center was activated on two separate occasions only to determine that having a comprehensive plan in place did not equate to effective emergency management practices. The activation of the emergency operations center led to lack of coordination, communication errors, leadership issues, ineffective crisis management and lack of organizational integrity. As the Monterey Park Police Chief, Dan Cross noted in a senior staff meeting on April 5, 2003, “when it comes to ultimate command and control issues, there is always going to be conflict between public safety entities in how we run the operation...there needs to be better coordination and communication among the various agencies that report to work within the emergency operation center.” It was apparent during the various emergencies within the City of Monterey Park that required emergency operations center activation, improvements in management practices needed to be made.

Following attendance at the National fire Academy’s *Executive Analysis Of Fire Service Operations In Emergency Management* course in January 2003, this researcher

approached the Monterey Park Fire Chief, who is identified as the Operations Section Coordinator within the emergency operations center, with a constructive concept of assessing the managerial elements during city-wide disasters. It was discussed that the two previous emergency operations center activations, following the adoption of multi-hazard functional plan, had lead to ineffective practices and poor performance. By building on the framework that had been laid with the new multi-hazard functional plan, the internal managerial practices could be improved, thereby bettering the service to Monterey Park constituents. The response to this constructive concept was “go for it” (Tim Murphy, Fire Chief, Monterey Park Fire Department, personal communication, February 18, 2003).

The concept of assessing the managerial practices within the emergency operations center and focusing on the critical elements to be successful would focus on the concept that the “lack of defined functions is one of the most serious problems associated with EOC’s” (National Fire Academy, 2001 *Executive Analysis Of Fire Service Operations In Emergency Management* Student Manual p. 9-4). The emergency operations center topics contained in Unit 9 of the National Fire Academy’s *Executive Analysis Of Fire Service Operations In Emergency Management* course would justify the need to assess the critical managerial elements of an effective emergency operations center. It would also lead to meeting one of the United States Fire Administrations operational objectives of “to promote within communities a comprehensive, multi-hazard risk-reduction plan lead by the fire service organization” (National Fire Academy, 2001, *Executive Fire Officer Program Operational Policies and Procedures*, p. II-2). Although

the City of Monterey Park had an existing multi-hazard functional plan, it did not have the practices and abilities to effectively exercise and deploy the plan. This critical operational objective established by the United States Fire Administration played an important role in keeping the focus of the next section, literature review, as the success of future emergency operation center activations would not be possible without sweeping improvements in the fundamental managerial practices of leadership and followership, communication, crisis management and organizational integrity.

LITERATURE REVIEW

The literature review was conducted to assess the critical managerial elements of an effective emergency operations center. Particular attention was given to the leadership and followership aspects of an effective emergency operations center, communication and interoperability between key resources within the emergency operations center, effective means of crisis management and the method of creating effective organization integrity during crisis filled events. Ultimately these improved managerial elements, coupled with an effective and comprehensive multi-hazard functional plan would lay the path to improve services for the constituents of Monterey Park, CA during any natural or man-made disaster.

Leadership and Followership

The management progression encountered in the emergency operations center is often stressful and strained. Confusion over operational issues, field practices and the often unsuccessful attempt to maintain control over dynamic situations often leads to breakdowns in organizational structure. According to Drabek (1990), “emergency

management is very much a magnifying glass by which the human stress created in an emergency is focused” (p. vi). It is this very reason that having a solid understanding of leadership and followership within the emergency operations center and adhering to those pre-determined positions is so critical. As any organization attempts to improve it is equally important to choose the most qualified person(s) to perform in any given function. According to Collins (2001), “the key point of transforming from good to great is not just the idea of getting the right people on the team. The key point is that ‘who’ questions come before ‘what’ decisions – before vision, before strategy, before organizational structure, before tactics. First who, then what – as a rigorous discipline, consistently applied” (p. 63). Having educated, well trained, and dedicated individuals in the leadership role, as well as the followership role is critical. It is important to make the distinction that leadership and followership is not and should not be diametrically opposed. The opposite is true as Kelley (1992) notes, “neither role corners the market on brains, motivation, talent, or action” (p. 41), but each plays a vital role in the success or failure of any organization or any managerial event, such as a city’s response to a disaster.

The goal of leadership and followership dynamics in emergency operations center events should be to find a balance and focus. After all, according to Belasco and Stayer (1993) “leadership is making it possible for others to follow by thinking strategically and focusing on the right direction, removing obstacles, developing ownership and taking self-directed action” (p. 89). As much emphasis must be placed on the followers within the emergency operation center as on the leaders if one wishes to be truly effective in the

managerial aspects of service delivery. After all, according to Gebhardt and Townsend (1997), “followership needs to be nurtured and fostered as leadership has been. Leaders are useless without followers, marginally effective with apathetic followers, and most effective when the followers are professional in their attitude toward followership as the leaders are towards leadership” (p. 45). It is only when an organization has a strong understanding and appreciation of the leadership and followership functions that refinement of other operational components, such as communication and interoperability can be examined.

Effective Communication

President Bush’s National strategy for homeland security requires that Federal, State and local governments ensure that all response personnel and organizations are properly equipped, trained and exercised to respond to all terrorists threats and attacks in the United States. Furthermore, the federal government has concluded, in the Emergency Responders’ Needs, Goals and Priorities report (March 2003), that “it is clear that responders need enhanced capabilities today, and that the most direct route to improving these capabilities is provide solutions that fit with today’s organizations and operational concepts. Thus responder perspectives of their own needs is an important point of departure for planning” (p. 14). It is this new federal perspective which sets the tone for justification of local response capabilities, which most often conclude that communication is the most significant shortcoming to effective emergency management.

The ability to effectively communicate, particularly during a crisis, can be the difference between success or failure of an emergency operation. According to Perlman

(2003), “the ability for various agencies to talk to each other at a time of crisis has become a top homeland security priority for many local governments” (p. 26). Conventional concepts of communication followed the notion presented by Bausch who states “traditional command center operations rely on extracting information from field units to know what’s going on at an incident. In this arrangement, information primarily flows vertically, from the field to the command center and back. Horizontal information flow, i.e. non-allied, interagency information sharing, is typically not a critical issue” (p 14). This concept of communication is quickly being replaced with a new perspective on the future of communication. The National Task Force on Interoperability (February 2003) presents the following scenario for the future of communication, “a future where no person loses a life or is injured because available information could not be shared. A future where emergency responses are coordinated, where information is shared in real time, where precious minutes are not wasted, and where emergencies are handled more effectively and safely” (p. 8). If communication can be improved and interoperability attained, then emphasis can be placed on dealing with the problem(s) through effective crisis management.

Crisis Management

Handling emergency situations on a regular basis leads to improved critical thinking, planning and decision-making. However, it is unrealistic to think that one can be experienced enough, educated enough or prepared enough to handle each and every situation without fault. This is where understanding the process of crisis management and employing effective principles can positively affect the outcome of emergency situations.

After all, according to Fink (1986), “a crisis is an unstable time or state of affairs in which a decisive change is impending – either one with a distinct possibility of a highly undesirable outcome or one with the distinct possibility of a highly desirable and extremely positive outcome. It is usually a 50-50 proposition, but you can improve the odds. (p. 15).

A main goal of effective crisis management is the ability to comprehend the processes, techniques and or characteristics of individuals involved with critical decision making, thereby improving the effectiveness of the managerial aspects of emergency response. It is indeed those individuals empowered to make the critical decisions that most affect the outcome. Janis (1989) contends that “the interaction between informational inputs and dispositions, may provide a fresh perspective for research on the role of personality in effective crisis management and policy planning” (p. 204). It is therefore essential to assure that the key decision-makers, those most often in power positions within the emergency operations center, and those who have the ability to influence outcome and have the necessary skills to accurately and effectively perform in crisis situations. Typically, if the key decision makers can positively affect the outcomes in relation to crisis management, the natural tendency would then lean towards the ability of those individual to maintain organization integrity during a emergency situations.

Maintaining Organizational Integrity

In the midst of crisis, it is easy to lose organizational focus and develop organizational tunnel-vision in reaction to emergency events as Seymore and Moore (1990) explain “crisis situations attract general interest accompanied by illogical and

unbalanced behaviour” (p. 107). It is therefore critical for emergency managers to recognize this pattern and be cognizant of the factors relevant to maintaining organizational integrity. According to Drabek (1990), “organizational integrity refers to (1) agency credibility (positive image and capability), (2) awareness of the need for the agency (mission justification), and (3) resource base (budget, staff, ect.)” (p. 57). To that end, managers must develop strategies to maintaining organizational integrity or as Drabek (1990) describes “effective managers seek to act proactively, rather than react each day to whatever problems the environment serves up” (p. 58).

Summary

The literature review was essential to this study in that it provided direction and focus for an otherwise general and diverse topic. Additionally, the literature review enhanced the understanding of effective managerial elements within the emergency operations center as they related to improving effectiveness during crisis. Before the research was conducted there was a common belief that the Monterey Park Emergency Operations Center, when activated, was lacking in critical functions necessary to be effective. There was, however, uncertainty as to the validity of those beliefs, because it is always difficult to be critical of one’s own organization. The research has provided a means to express the deficiencies, while not becoming offensive, overly critical or discourteous to the men and women who serve the constituents of Monterey Park with utmost pride and commitment. To that end, it was discovered that the Monterey Park Emergency Operations Center is much like many other municipal emergency services organization, faced with challenges and shortcomings, particularly in leadership and

followership, communications, crisis management and organizational integrity. In the final analysis, it is clear that Perlman (2003) has the right perspective, in that “state and local governments may not be thrilled to hear that they are expected to do a lot with very little, yet they have to move forward” (p. 26). In that same view the issues facing the City of Monterey Park, in relation to deficiencies in emergency operations, are not unique and can be overcome.

PROCEDURES

Literature Review

Research and data collection began with a literature review at the National Fire Academy’s Learning Resource Center in January 2003. Many articles in fire service trade magazines, technical reports and previous Executive Fire Officer applied research projects were found that addressed emergency operations centers, or at least covered topics related to the critical managerial processes necessary for effective emergency operation center activations. However, none of the reports tied a direct linkage between an effective functioning emergency operation center and the four key managerial components of leadership and followership, communications, crisis management and organizational integrity. A detailed literature review was conducted at the California State University, Los Angeles Library in February, March and April 2003 and a literature review was conducted at the City of Huntington Beach, California Central Library in April 2003.

Personal Interviews

Two personal interviews were conducted to provide relevant data for this applied research project. The first interview was conducted on April 24, 2003 with Daniel Cross,

Police Chief for the City of Monterey Park Police Department. The purpose for the interview was to gain background knowledge and insight, from the leaders perspective, into the police departments opinions and expectations of what constitutes an effective emergency operations center and more importantly to determine if the City of Monterey Park's Emergency Operations Center met those expectations. Additionally, a second interview was conducted on May 1, 2003 with Tim Murphy, Fire Chief for the City of Monterey Park Fire Department. The purpose for that interview was similar to that of the Police Chief's, in that the opinion and expectations of an effective emergency operations center was sought with primary interest in determining if the City of Monterey Park's Emergency Operations Center meet those expectations.

Consultation

Phone and electronic mail correspondence with William E. Rosenbach, professor of management at Gettysburg College was essential to the data collection related to leadership and followership. Based on information discovered during the literature review, as well as course material found in the Executive Fire Officer Curriculum at the National Fire Academy and finally previous research performed by the author, it was determined that Dr. Rosenbach could be considered a reliable source for current and relevant data in the field of leadership and followership and was instrumental in providing guidance in the form of validated test surveys.

Surveys

Two validated surveys, administered by Dr. Rosenbach, were used as a means for data collection in terms of leadership and followership tendencies within the Monterey

Park Emergency Operations Center. The Leadership Profile survey developed by Rosenbach, Sashkin and Harburg was administered to the Fire Chief (designated as the Operations Chief within the emergency operations center) and five participants (based on the participants followership positions within the emergency operations center) to develop a profile of the Fire Chief's transactional and transformational leadership behaviors and characteristics. The Fire Chief took the self-assessment survey, answering the questions as he sees himself in the leadership role within the emergency operations center and these results were compared to the results of the five members selected to take the same survey as observers. The observers were asked to rate their interpretation of the Fire Chief's leadership abilities within the emergency operations center. Dr. Rosenbach tabulated the results, providing an adequate cross-sectional view of the emergency operations center leadership and recommended the populations for this survey, which included a Fire Battalion Chief (Operations Section representative within the emergency operations center), a Police Lieutenant (Plans and Intelligence Section representative within the emergency operations center), a Public Works Manager (Logistics Section representative within the emergency operations center), a Management Analyst (Management Section representative within the emergency operations center), and a Financial Services Manager (Finance Section representative within the emergency operations center).

Concurrently, 15 Performance Relationship Questionnaires surveys, developed by Rosenbach, Potter and Pittman were administered to a diverse group of city staff. This included three members from each of the five emergency operations center sections (Operations, Plans and Intelligence, Logistics, Finance and Management). The results of

the Performance Relationship Questionnaire gave a followership profile in regards to the Monterey Park Emergency Operations Center relationship initiative and performance initiative. The populations of the Performance Relationship Questionnaire was based on equal representation from each of the five sections within the emergency operations center, and also based on the followership role of three personnel from each of the five sections.

All surveys, except for the survey taken by the Fire Chief, were completely anonymous and had the support and approval of the Fire Chief, as well as key city staff members who hold high level responsibility within the emergency operations center.

Assumptions and Limitations

An assumption was made that all respondents to the survey understood the questions and had the knowledge to answer the questions accurately and truthfully. Another assumption was that the respondents understood that the surveys were anonymous and that the results would not be used to affect their position within the emergency operations center or within their normally assigned city employment, thereby distorting the responses. A final assumption was that the participants understood the importance of the survey results and had the desire to adequately spend the time and energy necessary to provide reliable data for the profiles.

Several limitations impacted the study. Firstly, the Leadership Profile survey was restricted to the Fire Chief and five selected participants. The five participants represented all five sections of the emergency operations center (Operations, Plans and Intelligence, Logistics, Finance and Management). The profile did not include a group leadership

profile that would take into account nearly 10 times the number of personnel surveys (taking into account a full activation of the emergency operations center and the personnel needed to fully staff the center). Secondly, only the leadership and followership aspects of an effective emergency operations center was studied beyond the use of literature review. The communication, crisis management and organizational integrity management aspects of this applied research project did not consider the use surveys, statistical analysis or other empirical data to support the study. Finally, the managerial aspect of communication was primarily limited to external communication and interoperability, although in the leadership and followership surveys internal communication is discussed. By limiting the research examining external communication and interoperability, a key component of any effective managerial process, internal communications, is unnoticed. A conscious decision was made by the author to concentrate on interoperability, given the relevance and importance of the subject in modern emergency operations (both field operations as well as emergency operation center activations).

RESULTS

The literature review, personal interviews with the Monterey Park Police Chief and the Monterey Park Fire Chief, as well as consultation with Dr. Rosenbach and the completion of two validated surveys provide the following results:

Questions One

What role, if any, does leadership and followership play in an effective emergency operations center?

Based on The Leadership Profile test scores, which evaluates the candidate on a scale of 30 to 70 with 50 being the average, it becomes evident that the self-assessor (Fire Chief Murphy) and the five observer's developed a fairly consistent leadership profile. With the exception of transformational leadership behaviors, all results were well within acceptable limits, demonstrating congruency between the self-assessor and the observers. Table 1 below identifies the leadership profile overall assessment. The findings demonstrate that the Fire Chief has above average transactional leadership capabilities, transformational leadership behaviors and transformational leadership characteristics, however has a discrepancy between his self-evaluation and the evaluation of those he leads within the emergency operations center.

Table 1
The Leadership Profile Overall Assessment

	Self Assessment	Observer's Assessment
Transactional Leadership	57.27	53.29
Transformational Leadership Behaviors	60.78	54.82
Transformational Leadership Characteristics	57.10	52.94

Note. Table by author.

The detailed transactional leadership profile identified consistency between the self-assessor and the five observers, except in the reward equity rating element. Table 2 identifies the transactional leadership assessment.

Table 2
Transactional Leadership Results

	Self Assessment	Observer's Assessment
Capable Management	51.59	52.22
Reward Equity	62.96	56.37
Overall	57.27	54.29

Note. Table by author.

The detailed Transformational Leadership Behaviors identified inconsistency in most rating elements. The leadership communication rating element has identified an extreme discrepancy between the self-assessor and the observers. The inconsistencies in the remaining rating elements demonstrate the tendency of the Fire chief to evaluate higher than the observers. Table 3 identifies the transformational leadership behaviors. All rating elements, from both the self-assessor and the observers, were in the average to well above average range, demonstrating fairly effective transformational leadership behaviors.

Table 3
Transformational Leadership Behavior Results

	Self Assessment	Observer's Assessment
Leadership Communication	62.05	51.21
Credible Leadership	63.04	56.33
Caring Leadership	63.39	56.64
Creative Leadership	55.65	52.65
Overall	60.78	54.20

Note. Table by author.

The detailed Transformational Leadership Characteristics identified consistency in all rating elements except confident leadership. The most extreme discrepancy of all leadership profile rating elements were found in leadership communication. Table 4

identifies the transformational leadership characteristics. The follower-centered leadership rating element and the principled leadership rating element were found to be below average. The remaining rating elements were above average.

Table 4
Transformational Characteristic Results

	Self Assessment	Observers Assessment
Confident Leadership	66.18	51.89
Follower Centered Leadership	48.18	49.01
Visionary Leadership	61.78	59.28
Principled Leadership	52.26	46.41
Overall	57.10	51.65

Note. Table by author.

Based on the results of the Performance Relationship Questionnaire (PRQ) a clear and definitive followership profile was developed for the Monterey Park Emergency Operations Center. A detailed review of the PRQ identifies consistent scores in all eight of the rating elements, which are scored on a scale of one to five. The eight rating elements are then divided into two categories, performance initiative and relationship initiative, which produce the axis lines for a simple line graph. Table 5 identifies the follower profile results. The performance initiative category had rating element scores between 3.00 to 3.80 with the element “self as a resource” scoring the lowest. The relationship initiative category had rating element scores between 3.40 and 4.20 with the element “courageous communication” scoring the lowest.

Table 5
Follower Profile Results

	AVERAGE	LOWEST	HIGHEST
Performance Initiative			
Embracing Change	3.40	2.40	4.20
Self As A Resource	3.00	2.80	4.80
Working With Others	3.80	3.00	4.40
Doing The Job	3.20	1.80	5.00
Overall	13.40	11.40	17.20
Relationship Initiative			
Courageous Communication	3.40	2.20	4.20
Building Trust	4.20	3.40	5.00
Negotiating Differences	3.60	2.40	4.40
Identifying With The Leader	3.60	1.80	4.40
Overall	14.80	11.00	16.20

Note. Table by author.

The total scores for each category identified the relationship initiative category with an average score 1.40 higher than the performance initiative category. Table 6 identifies the follower style. The end result was a performance initiative average score of 13.40 and a relationship initiative average score of 14.80 categorizing the Monterey Park emergency operations center follower style as Subordinate.

Table 6
Follower Style

Relationship Initiative 10 11 12 13 14 15 16 17 18 19 20	POLITICIAN	PARTNER
	• SUBORDINATE	CONTRIBUTOR

10 11 12 13 14 15 16 17 18 19 20
Performance Initiative

- Denotes the groups follower style sampled

Questions 2

How can effective communication, particularly interoperability benefit the emergency operations center?

Effective communication is a necessity during routine emergency events, however during large-scale disasters effective communication, particularly the ability to exchange voice and/or data communication on demand to a wide array of emergency responders, becomes one of the most important aspect of organizational success. According to the National Task Force On Interoperability Guide (February 2003),

response by any number of agencies, including State and possibly Federal emergency management agencies, would be needed during and after large-scale disasters. Returning to some sense of normalcy would require the total cooperation of these agencies. Cooperation requires the ability to exchange information. On-the-scene, real-time radio communication across typical communication boundaries is a necessity. Communication is the key to minimizing loss to life and property (pp. 24-25).

This essential needs to reach complete interoperable communication rests solely with each local jurisdiction, as described by Hall (2003), “command responsibilities in a disaster tends to revert to local authorities because, as the maxim goes, all disasters all local” and the ability to effectively command rests solely on the ability to effectively communicate. The goal for each locality is determining the means to reaching interoperability.

The crucial step for any locality is to determine how to become interoperable in regards to communicating with the myriad of agencies that will be required to respond into the jurisdiction during large-scale emergencies. According to Emergency Responders’ Needs, Goals, and Priorities Interim Report (March 2003), an emergency operations center should have “the ability to provide communication systems that are able to seamlessly and dynamically inter-connect multiple interagency users (with multiple functions), as well as other information and communications technology systems. Localities should balance the following goals of interoperable communications with the current capabilities.

Goals:

- Capability to support separate communications channels/conduits among responders, strike teams and task forces.
- Should integrate wireless and wired.
- Integrate legacy and in-place systems.
- Include audio, video, data communications.
- Integrated communication systems which can be made operational by response agencies (without on-scene technical specialists) within five minutes.
- Common terminology and nomenclature.
- Scalable to integrate up to 500 agencies/systems.
- Multi-jurisdictional range with links to state and national systems.
- Ability to operate within and between challenging environments and terrain (e.g., high rise buildings, underground systems, canyons).

Current Capabilities:

- Communications systems vary across different jurisdictions and departments.
- Digital communications systems are only just now being deployed across the nation, and for the most part, without concern for interoperability.
- Standard system in most localities is 800 MHz trunk system. However, it has limited range, especially in urban environments, and not all localities have changed to this system or have the required repeater system to facilitate its use.
- This is an area where the responders believe that needed capability, as they have described above, is not available because of a combination of affordability and lack of standard
- There is also significant deficit in the ability to communicate within large buildings, deep in subway tunnels and underground structures and in canyons.
- Current systems mostly offer only voice communications, with little or no capability for text, graphics, pictures, or video” (pg. 19).

Questions 3

What are the important principles of effective crisis management?

One of the primary goals, in terms of crisis management, is avoiding confusion and conflict while gaining cooperation during a crisis. As Emerson (2003) points out “those at the front lines and in the midst of battle know the actual conditions in which they must deal. A corporate command team located in the headquarters hundreds of miles away from the incident cannot possibly assess and respond to the incident as well as the on-site command team” (p.36). It is therefore critical to establish, prior to the emergency event, practices that are employed for making decisions, including who has the authority to make decisions and a pre-designated context of what decisions may have to be made. Emerson (2003) points out “decision rights are focused on local issues posing safety concerns and requiring immediate response, execution or pre-defined plans, communication to staff and site related vendors, acquisition of equipment and deployment of staff within the immediate geographical area” (p. 36). Another important aspect of effective crisis management lies in preparation.

During a crisis is not the time to work out decision-making abilities, crisis communication techniques, crisis forecasting aptitude, or intervention maneuvers. The principles and techniques of effective crisis management must begin with preparedness. According to Fink (1986) “If you practice and prepare yourself adequately, you will be inoculating yourself against stress so that, during times of stress, during crises, during times of urgency and intensity and enormous time pressure, you are still going to go through the techniques that constitute vigilant decision making” (p.150) which usually

leads to effective crisis management. The best way to assure what you are practicing is in the proper context of effectively managing crisis is found in the planning phase.

According to Seymour and Moore (2002) “...the general steps needed to regain control in an unexpected crisis...is found in the creation of a sound preparedness plan well in advance of the crisis itself” (p.90). The planning phase of effective crisis management must assist and support the organization in such a way that they can predict and control the challenging functions that need attention during a crisis situation. Seymour and Moore (2002) contend that “ A preparedness plan is more than a traditional operational or emergency manual, because it recognizes that the outcome of your crisis hinges on what you say and how you say it as much as what you do. A programme to deliver a preparedness plan consists of six elements:

- An assessment of risks and threats
- A risk audit of the company’s operations.
- Strategic and tactical plans for operational handling of the identified risks and threats.
- A thorough understanding of the audiences that could be involved.
- A communication strategy that is closely integrated with operational decision-making.
- Simulation to test the integrity of the completed plan” (p.191).

Question 4

What is the most effective means in maintaining organizational integrity in times of crisis?

It is seldom contemplated, and often over-looked, but need of an organization to maintain the full spectrum of service, even during a large-scale disaster is critical.

Maintaining the integrity of the organization goes beyond the immediate need to sustain

command and control within the emergency operations center (although this too is very important), but speaks to assuring that all services provided by the organization prior to the disastrous event continue to be provided during and after the event. This concept of continuity of services must start with assuring the people within the organization are given a sense of well-being. According to Blythe (2003), “Any time the employees perceive that there is a sincere effort on the behalf of management to make the work environment safer, and any time there is a sincere effort on behalf of management to act compassionately to those that suffer harm, there is very much an increase in morale and a subsequent increase in productivity and an acceleration of a return to work” (p. 51). By supporting and caring for the employees within the organization, even during large-scale disasters, management takes advantage of the opportunities offered during difficult times and by doing so, enhances the ability to maintain organizational integrity.

Once management has instilled a sense of safety and protection among the people within the organization, the other key component of organizational integrity - business continuity can be addressed. According to Rainey (2003), “the ultimate goal of today’s business continuity plan is to ensure the continuity, integrity and availability of key business processes for the entire enterprise, and to plan and implement contingencies and response to deal with resumption of business as a result of any threats, risks and attack” (p.17). If the organization can be prepared for a multitude of potentials, and have reasonable processes established to deal with these potentials, then the organization can assure a smoother transition from chaos to normalcy, while assuring that the full extent of services and practices were maintained throughout the event.

DISCUSSION

The predominant leadership style within the Monterey Park Emergency Operations Center, based on interviews and the leadership profile, portray a style that has both strengths and weaknesses. Average to above average scores were noted by the observers and the self-assessor in terms of transactional leadership and transformational leadership characteristics and behaviors, but variances occurred between the two groups performing the evaluation. This variance demonstrates a need for leadership alignment with the organization and its members. According to Cohen (1990) there are four action steps to get people to follow you:

“1) make others feel important. People will follow you when you make them feel important 2) Promote your vision. No one will follow you simply because you decide you want to be lead 3) Treat others as you would be treated yourself 4) Take responsibility for your actions and those of your group. Admit your mistakes. You are responsible for everything the members of your group do or fail to do” (p.41).

In addition to the action steps listed above, the leadership should concentrate on developing the skills necessary to sustain and improve organizational growth. According to Townsend and Gebhardt (1997), “learning leadership is an ongoing process. Consciously and unconsciously, thoughts and ideas are continually integrated with responses and instincts into leadership practice...the most effective way to precipitate learning is practice. Leadership skills improve through study and experience” (p. 14).

The predominate followership style of the Monterey Park Emergency Operations Center, based on interviews and the Performance Relationship Questionnaire (PRQ) reveals an organization of “subordinates.” This classification poses a real struggle for organizational effectiveness as the subordinate followership style, as maintained by Rosenbach, Potter and Pittman (1999), is:

“Competent at a satisfactory level but not one to whom the organization looks for leadership...is the only kind of valued follower in hierarchical organizations which operate only with orders from the top and obedience from the bottom...and is also likely the style of a somewhat or completely disaffected follower who is not interested in giving anything extra, or whose job is not one of his or her primary concerns” (pp. 42-43).

The goal of the Monterey Park Emergency Operations Center, in regards to the followership style, must be to develop the human capital of the organization and move the predominant followership style to the “partner” quadrant, where Rosenbach, Potter and Pittman (1999) describe followers as “committed to high performance and effective relationships...organizations that anticipate and keep pace with change in the global environment are characterized by leaders who encourage partnership and followers who seek to be partners” (p. 43). The Monterey Park Emergency Operations Center, as part of the team-building process, should look to develop followers, as Kelley (1992) describes, “who work well with others when appropriate, rather than compete; to get the job done, rather than vie for power or credit; to stand up for what is right, rather than what gets them promoted; to care in the face of apathy; to know when enough is enough” (p. 27).

In addition to identifying opportunities for improvement in the leadership and followership within the emergency operations center there exists a true and immediate need for improving communication, particularly interoperability. Of course it is important to understand that change in the arena of communication is a slow and methodical process. According to the National Institute of Justice guide What Public Officials Need to Know About Interoperability (2003), “Before developing a solution, define the problem by performing a complete assessment of your current state of communication. This includes understanding what your first responders need. Planning includes policies and procedures, building a governing structure, and identifying potential resources” (p. 15).

It is clear that the current state of the Monterey Park Emergency Operations Center falls short of communication efficacy, given the center currently has two means of communication (telephone and cellular phone). These two means of communication are inadequate when compared to the criteria established by the Emergency Responders’ Needs, Goals, and Priorities Interim Report (March 2003) in that communication within the emergency operations center should meet the following goals:

Interoperable communications (down/up/horizontal); Current situation and resource status and location; Project future operations; Database and communication integration; Seamless integration between EOC and field command units; Open architecture; Link to regional and National EOC’s, agencies, and ‘trigger points’ (surveillance control stations, command posts, etc.); Geographical and functional redundancy in other non-proximate locations; And surge capacity (p. 29).

To gain compliance with recognized standards for effective communication and interoperability, the stakeholders of the Monterey Park Emergency Operations Center must be willing to commit time and resources (both monetary and human capital) to improve the current level of capabilities, through improving technologies and investing in long-term solutions to this critical element of managerial efficiency within any emergency operations center.

The ability to effectively manage a large scale disaster event while maintaining order within the organization is a difficult feat to say the least. Effective crisis management has proven to be a demanding managerial competency for the workers within the Monterey Park Emergency Operations Center to attain. The lack of command, control and complete breakdown of the division of labor has plagued the City of Monterey Park staff when an emergency operations center activation is required. The main issue facing this breakdown is the inability for staff members to transform into disaster workers. As Seymour and Moore (2000) explain, “At the moment a crisis hits, normal business organizations, structures and procedures must be rapidly replaced by crisis teams and management” (p. 97). It is this transformation that most often fails within the Monterey Park Emergency Operations Center, causing a sluggish and often times delayed response to a usually extremely dynamic event. In an environment where responsiveness, forethought and leadership is required, the typical reaction for Monterey Park City Staff is one of malaise and confusion. After all, according to Fink (1986), “a decision-maker who has failed to identify and isolate the crisis at hand may waste precious time meandering through perilous highways and byways filled with seemingly promising - but counterfeit-

escape hatches. This occurs because the nonidentification of the crisis obviously prevents the decision maker from identifying a specific goal or objective that will eradicate the problem” (p. 83). What appears to be most needed within the Monterey Park Emergency Operations Center are workers that can swiftly identify the problem(s), establish goals, develop a plan and react. Once these processes can be performed as routine practices, then the organization can better concentrate on city services as a whole.

What is not unique to Monterey Park, much like many small sized municipalities, is the need for dual-functioning personnel. The public works director may be called to the emergency operations center to put on the planning and logistics hat following a major earthquake. The accounts payable clerk may be asked to handle workers compensation claims and maintain a petty cash box during a disaster effecting the cities water supply. Typically, when the key players are called to the Monterey Park Emergency Operations Center, they leave their post as well as their responsibilities behind. A lengthy activation can and will cause a disruption in normal day-to-day operations within city hall. Furthermore, an individual worker who is thrust into a position they are not familiar with or comfortable performing will often revert back to what they know and where they are comfortable. While it is important to maintain personnel in key positions within the organization, it is equally important to fill key positions within the emergency operations center and maintain effectiveness. According to Drabek (1990) an easy way to become more comfortable with the roles of emergency management would be for the employee, “...to expand their knowledge base and obtain more training of a formalized nature...newcomers should get into professional development series courses” (p. 219).

Furthermore, Drabek (1990) recommends “...new managers would be well advised to visit their local emergency manager whom they viewed as being quite effective and successful” (p. 220).

The results of this study have identified opportunities for improvement throughout the Monterey Park Emergency Operations Center. Based on the data from The Leadership Profile and The Performance Relationship Questionnaire, several significant deficiencies should be closely examined and addressed during organizational improvement sessions. Some problems are related to leadership style and some to followership style. Communication and interoperability pose a challenge as does effective crisis management. Also an overall view of organizational integrity is missing in the emergency operations center activation plan. Emphasize should be made towards improving leadership communication, confident leadership, and follower-centered leadership found in the transformational evaluation portion of The Leadership Profile, as well as moving the followership style towards a “partnership” as identified in the Performance Relationship Questionnaire. Also obvious is an immediate need to improve the communication and interoperability aspects of the emergency operations center. An effort should be placed on moving the emergency management practices, related to communication, towards the goals established in the Emergency Responders’ Needs, Goals, and Priorities Interim Report (March 2003).

The organizational implications as a result of this study are:

1. Improving the predominate leadership style within the emergency operation center will encourage the leader(s) to advance the leadership communication

skills, confident leadership skills, follower-centered skills, and become a better transformational leader.

2. Improving the predominate followership style within the emergency operations center will move the organization from a subordinate position to a partnership, making for more effective managerial practices.
3. Improving the communication and interoperability within the emergency operations center will certainly lead to better communication flow, enhance information gathering and dissemination and will have a direct effect on life safety of first responders and citizens alike.
4. Assuring effective crisis management within the emergency operations center during any large-scale disaster, will provide a means to make quick, sound decisions and will enable a smooth transition from normalcy to chaos and back.
5. Maintaining organizational integrity, at a time of crisis, will ensure that all needs within the city are being met. Be it a routine response to a constituent concern or the declaration of a local disaster, all aspects of government will effectively be managed.

RECOMMENDATIONS

This applied research project was a starting point for the City of Monterey to begin a comprehensive evaluation and improvement process with the ultimate goal of improving the critical managerial elements required of an effective emergency operations center.

This improvement process should follow a convention path of evaluation, problem identification, improvement, re-evaluation, etc. This should be considered a long-term process that concentrates on the predominate leadership and followership styles and takes comprehensive steps towards bridging the gap between the two, addressing communication deficiencies, strengthening crisis management efforts and positioning the organization to maintain integrity.

The following recommendations should be adopted by the Monterey Park Emergency Operations Center:

1. The leaders and followers of this emergency management organization should begin a thorough search for a qualified consultant capable of aiding and assisting the personnel through a comprehensive team-building process. Emphasis should be placed on interaction and communication within a stressful environment, much like one encountered during an emergency operations center activation.
2. Based on the data collection and research findings, the leader should stress improvement on specific areas of leadership style. Emphasis should be placed on the following:
 - a) Capable Management - routine administrative or managerial tasks.

- b) Leadership Communication - clear and focused interpersonal communication.
 - c) Confident Leadership - basic sense of self-assurance.
 - d) Follower-Centered Leadership - empowering followers to take an active role in achieving group goals.
 - e) Principled Leadership - developing and supporting certain shared values and beliefs among group members.
3. Based on research findings, a comprehensive analysis of the emergency operation center communication capabilities should be completed. An excellent starting point for this analysis is the assessment tool found on pages 65-80 of the National Task Force On Interoperability Guide (February 2003). This easy to apply assessment allows an organization to determine the current radio communication capabilities, and provides a baseline upon which planning discussions can begin. Based on the findings of this assessment, in-depth planning can begin which will bridge the gap from poor communication to complete interoperability.
4. A strong argument can be made that by improving the leadership and followership capabilities within the emergency operation center that the ability to effectively manage crisis will also improve, however, given the nature of the environment during a crisis, careful attention should be paid towards assuring effective crisis management. The leadership of the emergency operations center should seek expert consultation and receive

individualized training to assist with critical decision-making capabilities and communication skills required to effectively manage crisis.

5. The City of Monterey Park will be well prepared to mitigate a myriad of emergencies and will effectively respond with professionals capable of assuming key roles within the emergency operations center, but a plan should be in place to handle the continuity of all city services. A comprehensive business plan should be developed that identifies city-wide organizational capabilities given the activation of the emergency operations center. The plan should consider the day-to-day operations that are determined to be critical tasks as well as those tasks that can be put off or completely ignored. By execution of this continuity of business plan, the city will be prepared to respond appropriately to any emergency event while maintaining complete organizational integrity.
6. Annual re-evaluation of the leadership and followership team-building process, the communication capabilities analysis, the individualized training for the leaders to assure effective crisis management practices and the continuity of business plan to assure organizational integrity should be conducted to guarantee the Monterey Park Emergency Operations Center is employing the most effective managerial practices.

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